

REMARKS

The Office Action dated January 24, 2005 has been received and considered. In this response, claims 1, 4, 12, 15, 18, 19, 27 and 28 have been amended and claims 2, 3, 13, 14 and 26 have been canceled without prejudice. Support for the amendments to the claims may be found in the specification and the figures as originally filed. Entry thereof and reconsideration of the outstanding rejections in the present application is respectfully requested.

Anticipation Rejection of Claims 1-22, 24 and 27

At page 2 of the Office Action, claims 1-22, 24 and 27 were rejected under 35 U.S.C. Section 102(b) as being anticipated by Parks (U.S. Patent No. 5,325,508). This rejection is respectfully traversed.

Claim 1, from which claims 4-11 depend, has been amended to substantially recite the limitations of claim 3 with clarification. Claim 1 presently recites the limitations of receiving a first request to access data from a first memory device, preparing the first request for the data for access through the first memory device, providing a second request to access the data from a second memory device, wherein the second request is provided concurrently with the step of preparing the first request; receiving a first notification that the data associated with the first request is available from the second memory device, and *discarding data received from the first memory device in response to the first notification, wherein the discarded data is associated with the first request*. With respect to the limitations of claim 3 as previously presented, the Examiner asserts that the passage at col. 3, lines 35-40 of Parks teaches that terminating a first request includes terminating data received from a first memory device, wherein the data is associated with the first request. *See Office Action*, p. 3. The Applicants respectfully submit that the cited passage at col. 3, lines 35-40 of Parks provides no mention of terminating requests to access data in any manner. Moreover, Parks fails to disclose the limitations of discarding data received from the first memory device in response to a first notification, wherein the discarded data is associated with the first request as recited by claim 1. Instead, Parks teaches that “[i]f, on the other hand, the data is found in the cache 22, *the data need not be retrieved from main memory 6 and the access to memory controller 24 can be cancelled* by, e.g., transmission of a signal from

the cache controller 16 to the memory controller 24 via line 26.” *Parks*, col. 7, line 68 – col. 8, lines 5 (emphasis added). Thus, whereas claim 1 recites the limitations of discarding data associated with the first request in response to the first notification, *Parks* teaches that the data is not retrieved from main memory 6 if the data is found in the cache 22 and thus there is no data from the main memory 6 to be discarded. *Parks* therefore teaches away from discarding data received from a first memory device in response to a first notification that the data is available from a second memory device as provided by claim 1. Accordingly, it is respectfully submitted that *Parks* fails to disclose each and every limitation of claim 1, as well as each and every limitation of claims 4-11 at least by virtue of their dependency from claim 1. Moreover, these claims recite additional limitations that are not disclosed by the cited references.

Claim 12, from which claims 15-18 depend, also has been amended to substantially recite the limitations originally presented by claim 3. Claim 12 presently recites the limitations of providing, in response to a first request, data from a cache memory when the data stored in the cache memory is coherent with the data stored in a memory device and discarding data received from the memory device when data is provided from the cache memory, wherein the discarded data is associated with the second request. As noted above with respect to claim 1, *Parks* discloses only that data is not obtained from main memory 6 when the data is found in the cache 22 and consequently fails to disclose the limitations of discarding data received from a memory device when data is provided from a cache memory as recited by claim 12. *See Parks*, col. 7, line 68 – col. 8, lines 5. It therefore is respectfully submitted that *Parks* fails to disclose each and every limitation of claim 12, as well as each and every limitation of claims 15-18 at least by virtue of their dependency from claim 12. Moreover, these claims recite additional limitations that are not disclosed by the cited references.

Claim 19, from which claims 20-25 and 27 depend, has been amended to substantially recite the additional limitations recited by claim 26 (now canceled). Claim 19 presently recites the limitations of a memory controller to: provide a second request to a bus interface unit, wherein said second request is to access data associated with a first request from a cache memory; receive a notification from said bus interface unit; generate a second identifier using said notification; store said second identifier as part of a kill list, wherein said kill list identifies requests to be terminated; and terminate the first request based on the kill list. As acknowledged

by the Examiner, Parks fails to disclose these limitations. *See Office Action*, p. 5. Accordingly, it is respectfully submitted that Parks fails to disclose each and every limitation of claim 19, as well as claims 20-25 and 27 at least by virtue of their dependency from claim 19. Moreover, these claims recite additional limitations that are not disclosed by the cited references.

In view of the foregoing, it is respectfully submitted that the anticipation rejection of claims 1-22, 24 and 27 is improper and the withdrawal of this rejection therefore is respectfully requested.

Obvious Rejection of Claim 23

At page 4 of the Office Action, claim 23 was rejected under 35 U.S.C. Section 103(a) as being unpatentable over Parks in view of Parvin (U.S. Patent No. 6,167,465). This rejection is respectfully traversed.

Claim 23 depends from claim 19. As noted above, claim 19 has been amended to recite the limitations of a memory controller to store a second identifier as part of a kill list, wherein said kill list identifies requests to be terminated, and terminate a first request based on the kill list. As noted above, the Examiner acknowledges that Parks fails to disclose these limitations and the Office Action does not assert that Parvin discloses or suggests these limitations. Accordingly, it is respectfully submitted that the proposed combination of Parks and Parvin fails to disclose or suggest each and every limitation of claim 23 at least by virtue of its dependency from claim 19.

In view of the foregoing, it is respectfully submitted that the obviousness rejection of claim 23 is improper and the withdrawal of this rejection therefore is respectfully requested.

Obvious Rejection of Claims 25 and 26

At page 5 of the Office Action, claims 25 and 26 were rejected under 35 U.S.C. Section 103(a) as being unpatentable over Parks in view of Chari (U.S. Patent No. 6,219,711). This rejection is respectfully traversed.

As noted above, claim 19 has been amended to recite the limitations of a memory controller to store a second identifier as part of a kill list, wherein said kill list identifies requests

to be terminated, and terminate a first request based on the kill list. The Examiner acknowledges that neither Parks nor Chari teaches these limitations. *See Office Action*, p. 5. These limitations being absent from Parks and Chari, the Examiner instead asserts that

it would have been obvious . . . to further include: the process of storing identifier [sic] as part of a kill list, where said kill list identifies requests to be terminated, into into [sic] Park's system. This is because it doesn't matter to terminate these requests immediately after receiving notification or terminate these requests later (gathering these requests into a list and delete them later), because these requests, that are invalid and return no data, must be deleted if not immediately, then sooner or later.

Office Action, p. 6.

The Applicants respectfully submit that neither Parks nor Chari provide any motivation for the implementation of a kill list as recited by claim 19. As discussed above, Parks provides that “[i]f, on the other hand, the data is found in the cache 22, *the data need not be retrieved from main memory 6 and the access to memory controller 24 can be cancelled by, e.g., transmission of a signal from the cache controller 16 to the memory controller 24 via line 26.*” Parks, col. 7, line 68 – col. 8, lines 5 (emphasis added). Thus, Parks teaches that the access to a memory request is canceled by the transmission of a signal in response to a determination that the data is found in the cache 22. As the signal terminates the access, Parks would have no use for generating a kill list for subsequent termination of requests. Similarly, Chari provides no support for the use of a kill list to terminate memory access requests.

Moreover, not only do Parks and Chari fail to provide any motivation for the modifications proposed by the Examiner, the Applicants respectfully submit that the use of a kill list as recited by claim 19 is not obvious. However, if these limitations are as obvious as asserted by the Examiner, it is respectfully submitted that the Examiner would not be unduly burdened by the task of identifying a prior art reference that shows an appropriate use of a kill list as provided by claim 19. Accordingly, the Applicants respectfully request that the Examiner cite such a prior art reference in the event that the Examiner continues to assert that these limitations are obvious in subsequent actions.

In view of the foregoing, it is respectfully submitted that the obviousness rejection of claims 25 and 26 is improper and withdrawal of this rejection therefore is respectfully requested.

Status of Claim 28

Independent claim 28 was added in an amendment filed on July 11, 2003. The pending status of claim 28 was reaffirmed in the pendency of claim 28 in a response filed on October 27, 2004. However, the present office action fails to provide the status of claim 28. In an effort to advance the present application, claim 28 was amended consistent with the amendments to claims 1 and 12. The cited reference fail to disclose or suggest each and every limitation of claim 28 at least for the same reasons provided above with respect to claims 1 and 12.


Conclusion

It is respectfully submitted that the present application is in condition for allowance and an early indication of the same is courteously solicited. The Examiner is respectfully requested to contact the undersigned by telephone at the below listed telephone number in order to expedite resolution of any issues and to expedite passage of the present application to issue, if any comments, questions, or suggestions arise in connection with the present application.

The Commissioner is hereby authorized to charge any fees that may be required, or credit any overpayment, to Deposit Account Number 50-0441.

Respectfully submitted,

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Date



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